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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,767	05/09/2001	Ying Ee Yip	STL9663	3825

7590 05/07/2003

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EXAMINER

HOLDER, REGINA NEAL

ART UNIT

PAPER NUMBER

2651

DATE MAILED: 05/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

APL

<b>Office Action Summary</b>	<b>Application No.</b> 09/851,767	<b>Applicant(s)</b> YIP ET AL.	
	<b>Examiner</b> Regina N. Holder	<b>Art Unit</b> 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: .  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 8 is objected to because of the following informalities: In claim 8, the phrase "reference line" lacks antecedent basis. The examiner thinks claim 8 should depend from claim 7 instead of claim 1. This would correct the lack of antecedent basis problem. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimote et al (5,212,677) in view of Sliger (5,745,313).

Regarding claim 1, Shimote et al teaches a disc drive comprising at least one disc having a plurality of sectors, a method of storing information on defective sectors comprising steps of defining a cluster comprising at least one defective sector, defining parameters describing the shape and size of the cluster (type, position and dimensions), storing the parameters. See col. 3 line 63 – col. 4 line 29. Shimote et al does not teach the sectors being categorized into zones, sorting defective sectors by zone, and selecting a reference sector from the cluster.

Sliger teaches selecting a single entry in the BPB which to store information about each cluster. This is functionally equivalent to selecting a reference sector, it a single location/reference which to store parameters about the entire cluster. See col. 5 lines 13-51. Although the reference does not teach zone recording, zone recording is well known in the disk drive and official notice is taken thereof. It would have been obvious to apply these steps to each zone because each zone has different characteristics.

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It would have been obvious to one ordinary skill in the art at the same time the invention was made to modify the teachings of Shimote et al to include the teachings of Sliger, motivation being to describe the physical and logical geometry of the disk as set forth in col. 5 lines 12-13 of Sliger.

Regarding claim 2, Sliger teaches non-defective sectors include the cluster. See col. 5 lines 48-51.

Regarding claims 3 and 4, the reference sector is analogous to the BPB entry for each cluster. Hence, any single sector within the cluster could correspond to the reference sector. Whether to use the first or last sector is a routine engineering decision based on speed and efficiency.

Regarding claims 5 and 6, Sliger teaches storing the number of sectors per cluster and sectors per track. See col. 5 lines 13-17. These parameters define the scratch parameter and span parameters.

It would have been obvious to one ordinary skill in the art at the same time the invention was made to modify the teachings of Shimote et al to include the teachings of Sliger, motivation being to describe the physical and logical geometry of the disk as set forth in col. 5 lines 12-13 of Sliger.

***Allowable Subject Matter***

3. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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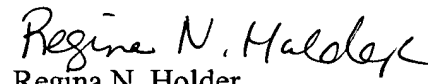
*Conclusion*

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina N. Holder whose telephone number is (703) 308-4078.

The examiner can normally be reached on 6:30 a.m. - 5:00 p.m. Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (703) 308-4825. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

  
Regina N. Holder  
Primary Examiner  
Art Unit 2651

rnh  
May 2, 2003